

Precision XY Motion Platform

FEATURES

- Compact Low-Profile Design
- 150mm XY Travel
- Zero backlash, precision ground ball screws
- Optical limit switches with home
- Stepper Motor
- Crossed Roller Bearings



The CXY-BS series stages are designed for a variety of applications. This compact low profile ball screw stage is built for high duty cycles and long life and can attain high velocities for factory automation and semiconductor processing equipment. The CXY series offers extraordinary levels of orthogonality and parallelism resulting in high accuracy for combined axis motion. Recirculating ball linear ways and precision ground ball screws offer extremely smooth operation and velocity control. The XY stage can operate in any orientation and has optional brakes for added safety.



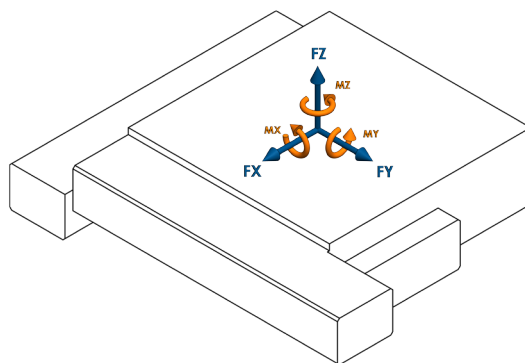
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CXY-C-150-BS-B-N-S-0-00

Motion Specifications

Product Specifications

Force X (N)	150
Force Y (N)	150
Force Z (N)	250
Flatness (μm)	7
Height (mm)	66
Length (mm)	367
Limit Switches	Yes
Linear Accuracy (μm)	25
Linear Repeatability (μm)	3
Linear Velocity (mm/s)	25
Moment X (N-m)	110
Moment Y (N-m)	110
Moment Z (N-m)	75
Moving Mass X (kg)	9.08
Moving Mass Y (kg)	3.59
Orthogonality (arc-sec)	10
Pitch +/- (arc-sec)	15
Screw Lead (mm)	2
Stage Mass (kg)	13.57
Stepper Motor Resolution (Whole Steps/rev)	400
Straightness (μm)	7
Width (mm)	312
Yaw +/- (arc-sec)	7



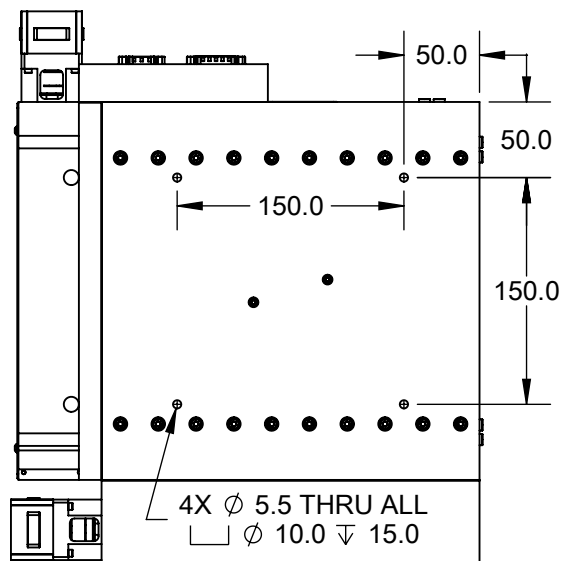
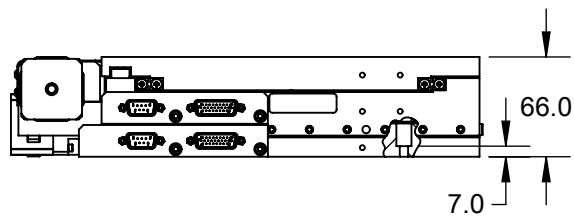
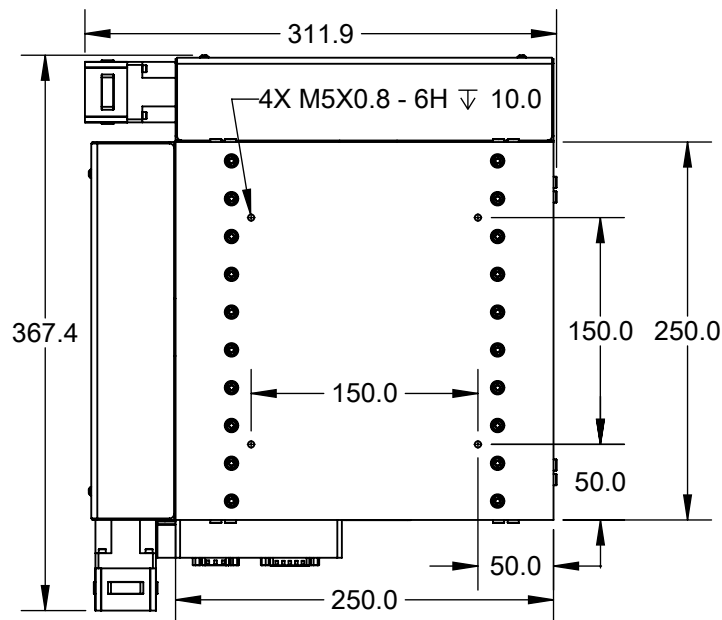
LOAD DIRECTIONS

Part Number Description

CXY	CXY Series
C	No Aperture
150	150mm Travel
BS	Ball Screw Drive
B	Stepper Motor
N	Limit and Home Switch Only
S	Standard Precision
0	No Additional Options
00	Standard Product (Call for custom)

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Mechanical Specifications



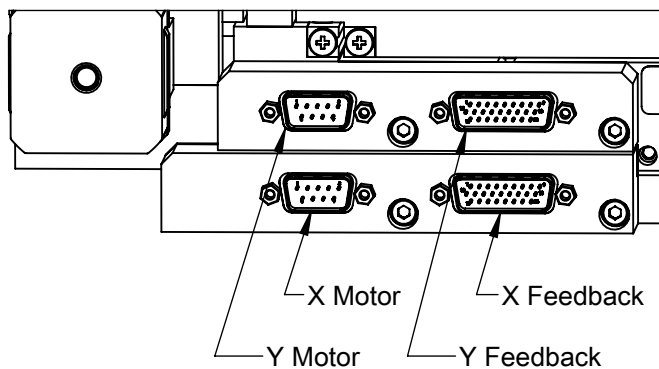
CXY-C-150-BS-B-N-S-0-00

Rev 10

CXY-C-150-BS-B-N-S-0-00

Electrical Pinout

Feedback Connector (DSUB26HD MALE)	
PIN	NAME
1	+5V
2	*
3	*
4	*
5	LIM+
6	*
7	*
8	*
9	*
10	*
11	*
12	*
13	*
14	LIM-
15	*
16	*
17	*
18	*
19	GND
20	*
21	*
22	*
23	HOME
24	*
25	*
26	*
* Reserved	



Motor Connector (DSUB9 MALE)	
PIN	NAME
1	*
2	*
3	*
4	*
5	*
6	PHASE A+
7	PHASE A-
8	PHASE B+
9	PHASE B-
* Reserved	



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Electrical Specifications

Motor Specifications	
Motor Type	Bipolar Stepper
Current/phase (A)	0.8
Resistance/phase (Ω)	10.0
Induction/phase(mH)	6.9

Feedback Specifications	
Supply Voltage (V)	5.0 \pm 10%
Supply Current (mA)	250
Encoder Feedback	No
Limit Switches	Yes
Limit Switch Output Type	CMOS
Limit Switch Output current (mA)	\pm 20.0
Home Switch	Yes
Home Switch Output Type	CMOS
Home Switch Output current (mA)	\pm 20.0

A home switch is provided near center mechanical travel and a limit switch at each end of travel. The limit switches will be pulled low throughout the travel range of the stage. The output will swing high at the end of travel and remain high until the mechanical limit is reached.